



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,065	04/20/2001	Ting Tina Ye	1001-1471101	2367

28075 7590 02/25/2003

CROMPTON, SEAGER & TUFTE, LLC  
1221 NICOLLET AVENUE  
SUITE 800  
MINNEAPOLIS, MN 55403-2420

EXAMINER

DESANTO, MATTHEW F

ART UNIT PAPER NUMBER

3763

DATE MAILED: 02/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/839,065

Applicant(s)

YE ET AL.

Examiner

Matthew F DeSanto

Art Unit

3763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-34 and 41 is/are pending in the application.
- 4a) Of the above claim(s) 35-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 and 41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2 and 41 are rejected under 35 U.S.C. 102(e) as being anticipated by Samson et al. (USPN 6090099). Samson et al. discloses a catheter comprising an elongated shaft, having a proximal end, a distal end and a distal tip, wherein the shaft includes an inner liner, a second layer disposed on the inner layer, a third layer disposed on the second layer and a fourth layer disposed on the third layer and a radiopaque marker. (Figure 2).

Wherein the liner comprises polytetrafluoroethylene. (Column 6, lines 16-22).

Wherein the distal tip has a shapable length and the distal terminus is set back from the distal end of the shaft a distance equal to or greater than the shapable length. (Figure 1 and 2).

Wherein the distal tip can be heat set by steam. (Column 6, lines 30-31).

Art Unit: 3763

Wherein the third layer comprises a coil, and where the coil comprises steel, nickel or a non-ferrous metal. (Column 6 line 51 – Column 8, line 11).

Wherein the distal end of the shaft has an outside diameter that is less than the diameter of the proximal end of the shaft, and where the durometer is less at the distal end than at the proximal end. (Column 8, lines 49-67).

Wherein the second layer further comprises a second segment, and the second segment is disposed at the inner liner between the distal terminus and the distal end of the shaft. (Figure 2).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 – 6, 8 – 11, 13, 14, 15, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sampson et al. Sampson et al. discloses the claimed invention except wherein the distal terminus is about 4 millimeters from the distal end. It would have been an obvious matter of design choice to one skilled in the art to modify the apparatus as taught by Sampson et al. to have a distal terminus 4 millimeters from the distal end, since applicant has not disclosed that 4 millimeters provides any criticality and/or unexpected results and it appears that the invention would perform

Art Unit: 3763

equally well with any length from the distal terminus, such as the length as taught by Sampson et al. which is less than 2 centimeters as taught by Sampson et al. for the reasoning of allowing a more flexible distal end.

5. Claims 1-34 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sampson et al. as applied to claims 1 – 6, 8 – 11, 13, 14, 15, 17, 18 above, and further in view of Nita et al. (5951539).

Sampson et al. disclosed the claimed invention as mention above, but fails to teach the use of polyether block amide for the second and fourth layers, as well as having a multiple coil section in the proximal area and wherein the fourth layer has a greater durometer in the proximal end then in the distal end.

Nita et al. discloses an intravascular catheter with an inner layer lubricious liner, a first, helically wound coil extending over at least the more distal portions of the inner liner but preferably for most of the length of the catheter, a second, helically wound coil exterior to the first coil, located at least on the more proximal portion of the assembly but preferably for most of the length of the catheter, preferably wound in a direction opposite to the first coil, optionally, one or more helically wound coils placed on the proximal and mid-section of the assembly, and one or more polymeric layers variously exterior to the second coil and interior to the first coil. Further polymeric layers may also be placed between the outer polymeric covering and various and the helically wound coils. The outer polymeric covering may be composed of a series of different polymeric compositions to provide suitably differing flexibilities along the length of the assembly. The helically wound coils may be bound to the assembly via the use of radio-opaque

Art Unit: 3763

bands or coils and may be continuously wound from a single member. The distal-most portion of the catheter assembly is very flexible but highly kink resistant. Optionally, the invention includes a catheter in which only the more distal catheter section incorporates multiple coil stiffener members. (Figures 2E, 2F, 4, 7, 8, 9, and 10).

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine Sampson et al. with Nita et al. because Nita et al. taught having outer polymeric tubing sections with different durometers (Column 12, lines 46-62), which allows for an increase in flexibility and maneuverability. Nita et al. also taught having a single coil in the distal end and then multiple coils in the proximal end, which allows for a greater "pushability" (Column 9, lines 9-27). Nita et al. also disclosed using polyether block amide in the polymeric layers because of the qualities the composition possess in the area of torsion modulus, flexibility and column strength.

Therefore, it would have been obvious to combine Sampson et al. with Nina et al. to obtain the invention as specified in claims 1-34 and 41.

### ***Response to Arguments***

6. Applicant's arguments filed December 16, 2002 have been fully considered but they are not persuasive. The applicant argues two points; the first point being that Sampson ('099) does not disclose a distal end which has a shapeable length, and the second point being that the distal terminus is set back from the distal end of the shaft greater than or equal to the shapeable length.

As to the distal tip not being shapeable, the examiner interprets this, as meaning the distal tip of the catheter would be able to form a shape or have enough flexibility to maneuver the tip of the catheter through out the body. This is taught by Sampson ('099) in the entire reference because the catheter is designed to be used in the body to move through curved vessels (Column 5, lines 20-35), and therefore would have to be shapeable.

As to the distal terminus being set back from the distal end of the shaft greater than or equal to the shapeable length the examiner believes that Sampson ('099) discloses this in Figure 2 and the entire reference; for the reasoning that since Sampson has a shapeable distal tip and has several second layers thus having a distal terminus that is set back from the distal end of the shaft that is greater than or equal to the shapeable length. Therefore the examiner interprets Sampson in Figure 2, to have a distal terminus (reference 210) and thus the shapeable length would be the front section of the catheter from reference point 210 to the distal end, thus disclosing the claimed invention.

Art Unit: 3763

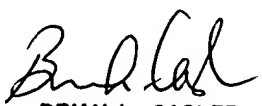
**Conclusion**

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew F DeSanto whose telephone number is 1-703-305-3292. The examiner can normally be reached on Monday-Friday 8:30-6:00.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 1-703-308-0858.



**BRIAN L. CASLER**  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3760